Laboratory tests for the thin elderly cat

Loss of weight is common in elderly cats. Sometimes the cause is readily diagnosed on physical examination such as dental disease, or on routine testing which detects hyperthyroidism, chronic kidney disease or diabetes mellitus. Other causes may require further testing such as evaluation of cobalamin, folate and TLI (trypsin-like immunoreactivity) which point to inflammatory bowel disease/GI lymphoma or exocrine pancreatic insufficiency. Some diseases remain elusive despite laboratory testing and additional diagnostics including radiography, ultrasonography, endoscopy, and biopsy may be necessary. The sensitivity of single testing is often poor and diagnosis requires a combination of results from the physical examination, history, and various tests.

There is a group of cats which show no abnormalities on blood work or in intestinal biopsies to explain their weight loss. Studies have found that there is a decrease in fat and protein digestibility as cats age with more than 30% of cats over the age of 12 years affected. As many cats lack histologic lesions, it is thought that functional abnormalities may be present.

Disease	Laboratory Test	Comment
Common		
Hyperthyroidism	T4	Non-functional thyroid masses and non-thyroidal masses may be present in the neck. T4 is required for diagnosis.
	Urea, creatinine	Concurrent renal disease is common and may be exacerbated by treatment.
	Liver enzymes	± elevated, do not necessarily indicate hepatobiliary disease
	Folate Cobalamin	It is estimated that ~50% of hyperthyroid cats have concurrent intestinal and/or pancreatic abnormalities
Chronic kidney disease	Urea, creatinine, Urine SG ± SDMA, Protein:creatinine ratio	
Diabetes mellitus	Glucose Fructosamine	Concurrent hyperthyroidism decreases serum fructosamine concentration
IBD	Cobalamin	Severe, chronic distal small intestinal disease can lead to decreased cobalamin uptake and low serum levels
	Folate	Chronic proximal small intestinal disease can cause decreased folate update and low serum levels. Many bacterial species synthesise folate and changes in the GI microbiota can lead to an increased serum folate concentration with bacterial overgrowth.
	Albumin	
Less common		
Exocrine pancreatic insufficiency (EPI)	Cobalamin Feline TLI	Cobalamin absorption requires adequate pancreatic function and is low in cats with EPI
Intestinal disease, not IBD	CBC	Rule out chronic blood loss associated with bleeding GI lesions
	Faeces ± Faecal occult blood	Some faecal pathogens are intermittently excreted so ideally a pooled faecal sample (collected over 3-5 days) for culture and parasitology is recommended To test for the presence of faecal occult blood a patient should be taken off meat prior to testing. For more information see our webpage: Resources: Companion animal: Faecal-occult-blood-testing.pdf
Chronic liver disease	ALT, ALP, Albumin Bile acids	Focal liver disease does not necessarily increase bile acid concentration
Retroviral disease	FIV and FeLV	